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## Patent Abstracts of Japan

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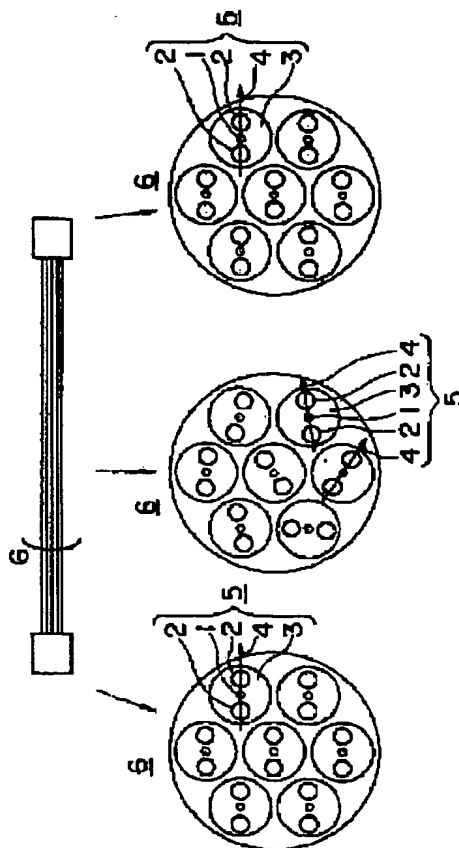
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APPLICANT : FUJIKURA LTD;

INVENTOR : HOSOYA HIDEYUKI;

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TITLE : POLARIZATION MAINTAINING  
OPTICAL FIBER BUNDLE



ABSTRACT : PROBLEM TO BE SOLVED: To enable light signal and communication utilizing other optical parts by fixing both ends of bundles and aligning the angles of polarization maintaining axes.

SOLUTION: Only both the ends of bundled polarization maintaining optical fibers 5 are fixed by adhesives. Both sides of the cores 1 are provided with circular stress imparting parts 2 and clad parts 3 concentric with these cores 1 have the cross-sections to enclose the cores to a circular shape. The polarization maintaining optical fibers 5 have the polarization maintaining axes 4 on the central axis of the cores 1 and the stress imparting parts 2. At both end faces thereof, the directions of the polarization maintaining axes 4 of all the optical fibers are aligned to the lateral direction of the cross sections by the regulation of the axes but are not aligned in the other portions where the optical fibers are not fixed. However, the directions of the polarization maintaining axes 4 are aligned at both ends and, therefore, even if the directions of the polarization maintaining axes are not aligned in the other portions, the exact connection to the other optical parts is possible. The light signal and communication utilizing the same are possible and the optical communication is easy.

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